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THE WEEKLY BEE JOURNAL

ESTABLISHED
IN 1861

DEVOTED TO THE INTERESTS OF HONEY PRODUCERS.

ESTABLISHED IN
1861.

Chicago, Ill., July 30, 1884.

VOL. XX.—No. 31.

THE WEEKLY EDITION OF

**THE AMERICAN
BEE JOURNAL**

PUBLISHED BY

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR.

925 WEST MADISON ST., CHICAGO, ILL.

Weekly, \$3 a year; Monthly, \$1.

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THOMAS G. NEWMAN,

925 West Madison Street, Chicago, Ill.

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Apiary Register for 200 colonies	3 50.. 3 25
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The Apiary Register, by THOMAS G. NEWMAN.—A Record and Account Book for the Apiary, devoting 2 pages to each colony, ruled and printed, and is so arranged that a mere glance will give its complete history. Strongly bound in full leather. Price, for 50 colonies, \$1.00; for 100 colonies, \$1.25; for 200 colonies, \$1.50.

Honey as Food and Medicine, by THOMAS G. NEWMAN.—It gives the various uses of Honey as Food; recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc. Also, Honey as Medicine, with many valuable recipes. It is intended for consumers, and should be liberally scattered to help in creating a demand for honey. Price, for either the English or German edition, 5 cents—one dozen, 40 cents—100 for \$2.50—500 for \$10.00—1,000 for \$15.00.—If 100 or more are ordered, we will print the bee-keeper's card (free of cost) on the cover.

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Bee Pasturage a Necessity, by THOMAS G. NEWMAN.—Progressive views on this important subject; suggesting what and how to plant.—A chapter from "Bees and Honey." 26 engravings. Price, 10c.

Bees in Winter, by THOMAS G. NEWMAN.—Describing Chaff-packing, Cellars and Bee-Houses. A chapter from "Bees and Honey." Price 5c.

Biener Kultur, by THOMAS G. NEWMAN.—In the German language. Price, in paper covers, 40 cents, or \$3 per doz.

Bee-Keepers' Guide, or Manual of the Apiary, by PROF. A. J. COOK.—It is elegantly illustrated, and fully up with the times on every subject that interests the bee-keeper. It is not only instructive, but interesting and thoroughly practical. It comprises a full delineation of the anatomy and physiology of Bees. Price, \$1.25.

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Constitution and By-Laws, for local Associations, \$2 per 100. The name of the Association printed in the blanks 50c. extra.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, 10c. each, or \$8 per 100.

Weekly Bee Journal,

DEVOTED TO THE INTERESTS OF THE PRODUCERS OF HONEY.

VOL. XX.

CHICAGO, ILL., JULY 30, 1884.

No. 31.

THE AMERICAN
BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

"Honor to Whom Honor is Due."

We have received the following from W. Z. Hutchinson, being upon the above subject:

After Mr. Heddon has battled as he has for the "pollen theory," borne up bravely under the slurs and sarcasm which has been hurled at him, met all arguments that have been brought forward, and, best of all, after having conducted extensive experiments to prove the theory; and now, just as success appears to be poised upon her bright wings above his head, for Mr. Fradenburg to step forward with claims of priority, appears to me to be unjust, and I cannot resist the temptation of commenting on the subject.

When Mr. John Longmate, last March, coolly gave in the BEE JOURNAL an illustrated article embracing principles already illustrated and described by Messrs. Heddon and Alley, and never mentioned their names, I said to myself, "there is cheek;" but this claim of Mr. Fradenburg, of being "head-and-neck ahead" of Mr. Heddon regarding the "pollen theory," caps the climax. Has Mr. F. so soon forgotten that Mr. Heddon reported, about a year and a half ago, how he (Heddon) produced diarrhoea at will, by feeding stores well mixed with flour for pollen? Mr. Heddon has made and reported at least three as conclusive experiments as the one reported by Mr. F. on page 374; and why Mr. F. should consider his the first experiment is beyond my comprehension, unless it is the first one that he believed to be proof.

It is, perhaps, natural that each should look upon his own experiments as the most conclusive. Many regarded Mr. Heddon's experiments as proof—some did not. Mr. Pond did not, and he views Mr. F.'s experiments in the same light. Mr. F.'s experiment resulted in exactly what Messrs. A. B. Mason, Kohnke, Oatman, Heddon, myself, and many others would willingly have staked our reputation upon, that it would;

but because Mr. Pond put him (Fradenburg) in mind of it, it is simply preposterous that he should claim the honor of priority. Dr. Tinker would not allow that.

I do not wish to be misunderstood. Others may have thought of the "pollen theory" before Mr. Heddon did, but what have they done?

The "pollen theory." Theory to whom? Theory to those who have no proof but somebody's word. Knowledge to whom? To those who have tested it over and over again, year after year. To the mass of beekeepers it is yet a theory, and will so remain until the common voice says, "scientific fact."

Rogersville, Mich.

In reference to Mr. Longmate's illustrated article, we must in justice state that both the illustration and article were in our drawer awaiting room for an insertion in the BEE JOURNAL for several months before they appeared.

Mr. Fradenburg's assertion that he was the discoverer of the pollen theory is, of course, not proven—merely asserted. Upon looking for the proof, we find on page 374, that he only claims to have started his experiments "last fall," while Mr. Heddon had then been writing upon that theory for two years.

Inasmuch as we have placed Mr. Fradenburg upon record, by publishing his claim to be the author of "the pollen theory," we now kindly call upon him for the proof, which, of course, he must have (or thinks that he has) or he would never have dared to make his bold assertion. Until he has sufficient time to present his reasons for putting forth the claim, let all suspend judgment.

We cannot refrain here from giving a caution to all writers for the BEE JOURNAL, to be sure to make no assertions which they cannot substantiate, in the most satisfactory manner—no matter what may be the subject under consideration. To do otherwise often engenders strife and confusion, as well as leading to ill-feeling and contempt.

Local Convention Directory.

1884. Time and place of Meeting.

Aug. 6.—Lorain Co., O., at Elyria, O.
O. J. Terrell, Sec., North Ridgeville, O.

Aug. 2.—Gibson Co., Tenn., at Trenton, Tenn.
T. J. Happell, Sec.

Aug. 13.—Northeastern Ky., at Covington, Ky.
G. W. Cree, Sec.

Aug. 19.—N.W. Ill. & S.W. Wis. at L. Highbarger's.
J. Stewart, Sec., Rock City, Ill.

Oct. 11, 12.—Northern Mich., at Alma, Mich.
F. A. Palmer, Sec., McBride, Mich.

Oct. 15, 16.—Northwestern, at Chicago, Ill.
W. Z. Hutchinson, Sec.

Nov. 25.—Western Mich., at Fremont, Mich.
Geo. E. Hilton, Sec.

Dec. 3.—Southeastern Mich., at Adrian, Mich.
A. M. Gander, Sec.

Dec. 10, 11.—Michigan State, at Lansing.
H. D. Cutting, Sec., Clinton, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

We have received a copy of a pamphlet entitled "The Poulterers' Guide, for treating diseases of poultry, giving cause, symptoms, and remedies for their cure; also, how to caponize fowls, and feed and rear chickens hatched in an incubator." It is a handsome book, and well worth the price (25 cents) for it is full of information valuable to every breeder of poultry. It is written by Mr. C. J. Ward, the editor of the *Poultry Journal*, of Chicago. We can supply it at the publisher's price.

A Bee-Keepers' Association has been formed for Hamilton County, Texas; Constitution and By-Laws have been adopted, and officers elected. Mr. W. M. Sparkman is president, Mr. C. S. Doubleday is secretary.

We have received the Premium List of the Tri-State Fair, which will be held at Toledo, O., Sept. 8 to 13, 1884. Dr. A. B. Mason, of Wagon Works, O., is the superintendent of the Apiary Department. The premiums are substantially the same as last year, and amount to \$219. The Doctor will send a copy of the Premium List to any one who desires to have it.

Honey Dew.

In a recent issue of *Gleanings in Bee-Culture*, a correspondent has an article on Honey Dew, and asks Prof. Cook for an explanation, as follows:

"I noticed an article in *Gleanings* for June 15, from E. R. Root, about honey-dew. I had a little experience in that line this season, which may be of interest to your readers. About the 8th or 9th of this month, I went to the pasture after the cows, when, near the woods, I heard a tremendous roaring of bees, and, thinking a swarm was passing over, I looked in every direction, but could see no bees. As I got nearer the woods, the sound seemed to increase in volume. Just in the edge of the woods, I saw a young hickory tree in blossom, and thinking the bees might be working on that, I went up to the tree, when I found the leaves completely covered with what is known as honey-dew. The trees were fairly alive with bumble-bees, honey-bees, yellow-jackets, wasps, hornets, and flies; the leaves were so covered with the honey-dew, that they had the appearance of being varnished.

"Looking up to the top of the tree, I saw myriads of small insects, which I took to be aphides or plant-lice; but on looking closer, I discovered that they were small, striped bugs, which seemed to be gathering honey-dew, with the rest. After looking around and finding the honey-dew on oak, maple, elm and beech trees, I went on over to friend Phelps', taking some of the leaves with me. I found him at home, and together we went back to the woods, to see if we could discover the source of the honey-dew. After looking at the trees for some time, we about came to the conclusion that it was a natural secretion of honey in the leaves of the trees. While we were talking and watching the bees, we noticed a bee running along the branches, stopping from time to time to gather something. Upon pulling down the limbs and looking closely, we discovered that they were literally covered with the scaly aphids, or bark-louse. Upon close inspection, we discovered a small drop of clear fluid exuding from the backs of the lice. This was what the bees were gathering on the branches, and it was falling all the while in a fine spray, it being visible on our coats when we came out into the sunshine. Now, this scaly aphid assumes the color of the bark of whatever kind of tree they are working on, and being quite small it requires close inspection to see them. I think we would not have seen them but for the bees working on the branches. Now, may not this, in a measure, account for some of those mysterious falls of honey-dew that we hear of? The flow of honey from this source lasted about two or three weeks, or until the bees began to work on white clover, and perhaps a little longer, as I find, in taking off honey, the boxes are spotted more or less with the honey-dew, while some are filled entirely with it. As to quality, all that I have

to say is, that if any person can eat it, he is capable of eating anything. It looks nasty, it tastes nasty, and it is nasty; and what to do with it, I do not know, for it is not fit for a hog to eat.

"Now, as I am rather ignorant of the subject of entomology, will Prof. Cook, or some one else who is posted, inform us of the different stages of the bark-louse, and about the time that they remain in each stage, and whether they often produce this so-called honey-dew? This is a new thing to me, having never in my life noticed it before, and I would like to know how many different kinds of insects and worms are capable of producing honey-dew."

Prof. Cook has prepared an article on this subject, as follows:

From very numerous inquiries as to name, habit and remedies regarding this louse, I have for some weeks intended writing you; but an overwhelming amount of work has prevented, until your letter drives me to it. Pres. E. Orton writes me that this insect is killing the soft maples, and wishes a remedy. Mr. O. J. Terrell, from North Ridgeville, says they are affording much nectar which attracts the bees and seems excellent, and wishes to know if it is probably wholesome. The editor of the *Cold-water Republican* asks if there is any way to save the maples. These are samples of a score of inquiries coming thick from Ohio, Illinois, Indiana and Michigan.

DESCRIPTION.

The maple tree scale or bark-louse (*Pulvinaria innumerabilis*, Rath.) consists, at this season, of a brown scale about five-eighths of an inch long, which is oblong, and slightly notched behind. On the back of the scale are transverse depressions, marking segments. The blunt posterior of the insect is raised by a large, dense mass of fibrous, cotton-like material, in which will be found about 800 small, white eggs. These eggs falling on to a dark surface, look to the unaided eye like flour; but with a lens they are found to be oblong, and would be pronounced by all as eggs, at once. This cotton-like egg-receptacle is often so thick as to raise the brown scale nearly a fourth of an inch. These scales are found on the under side of the limbs of the trees, and are often so thick as to overlap each other. Often there are hundreds on a single main branch of the tree. I find them on basswood, soft and hard maple, and grape-vines, though much the more abundant on the maples.

Another feature at this mature stage of the insect, is the secretion of a large amount of nectar. This falls on the leaves below, so as to fairly gum them over, as though they were varnished. The nectar is much prized by the bees, which swarm upon the leaves. If such nectar is pleasant to the taste, as Mr. Terrell avers, I should have no fear of the bees collecting it.

From the middle to the last of June, the eggs begin to hatch, though hatching is not completed for some weeks

after it begins, so we may expect young lice to hatch out from late in June till August.

The young lice are yellow, half as broad as long, tapering slightly toward the posterior. The seven abdominal segments appear very distinctly. The legs and antenna are seen from the other side. As in the young of all such bark-lice, the beak, sucking-tube, is long and thread-like, and is bent under the body till the young louse is ready to settle down to earnest work as a sapper. Two hair-like appendages, or setae, terminate the body, which soon disappear.

The young, newly-born louse, wanders two or three days, then inserts its beak into the leaves where it first locates. It prefers the middle under-side of the leaf. In autumn, the much-enlarged louse withdraws from the leaves and attaches to the under side of the twigs and branches; while on the leaves, they sometimes, though rarely, withdraw their beak, and change their position. In winter, the young lice remain dormant; but with the warmth of spring, as the sap begins to circulate, the lice begin to suck and grow. The increase of size, as the eggs begin to develop, is very rapid. Now the drops of nectar begin to fall, so that leaves and side-walks underneath, become sweet and sticky. In the last *Ohio Farmer*, Mr. Singleton states that leaves of the maple do secrete honey-dew. It is on the leaves, and there are no aphides or plant-lice. Mr. Singleton's honey-dew is, without doubt, this same nectar from bark-lice. Had Mr. S. looked on the under-side of the branches, instead of on the leaves, he would have found, not aphides, to be sure, but bark-lice.

If these spring lice are examined closely with a low magnifying power, a marginal row of hairs will be seen.

MALES.

Some few of the scales, in late July, will be noticed to be dimmer, lighter in color, and somewhat more convex, above. In these, the setae do not disappear, but may be seen projecting from the posterior end of the scale. In August, the mature males appear. These have the scales, have two wings, and are very active. Although the females are to continue to grow till the next June, coition now takes place. The males are seen for two or three weeks, though each individual probably does not live as many days. It is quite probable that, as in case of production of drone-bees or aphides, the males of these scale-lice are not absolutely necessary to reproduction. We know they are not in some species.

REMEDIES.

By use of a long-handled broom, dipped in strong lye or soap-suds, the thickly gathered lice could be readily removed, on the lower side of the branches, at any time in the spring. This would kill the lice, and prevent egg-laying, or destroy the eggs already laid. The earlier this is done in the spring, the better. The position of the lice, on the under-side of the branches, makes this more practicable, if not the only practicable rem-

edy at this season. On a few trees, or on small trees, this is no serious task. If this is neglected, or is thought to be too great a task, the trees may be syringed in early July, just when the young lice are most susceptible, with the following: One quart soft soap, ten quarts water, and one quart kerosene oil; stir all together. This can be thrown on with a fountain pump. As the lice are mostly on the lower side of the leaves, it should be thrown from below, upward. This also applies to other species of bark-lice, which are very common this season. The basswood, the tulip (see my Manual, p. 249), the elm, the hickory, the blueash, etc., are all suffering from bark-lice, much like the above, except that the cottony substance is wanting. It is a comforting truth, that all these species are often destroyed by their enemies before they entirely kill our trees, though they often do great harm.

Bee-Keeping in Cuba.

Mr. A. J. King has written the following very interesting letter to his paper, the *Bee-Keepers' Magazine*:

The average Cuban bee-hive consists of a box 10 to 12 inches square, and 5 feet long, nearly always open at both ends; often instead of boxes, hollow palm logs about the same capacity and length are employed. These hives always occupy a horizontal position, sometimes on the ground, but oftener on a rude frame-work about 3 feet high, driving down crocheted stakes about 4 feet apart, and as long as is deemed necessary to accommodate the number of hives owned by the bee-keeper.

Long poles, usually of bamboo, are stretched from crotch to crotch, the whole length of the apiary; these poles supporting the ends of the hives.

The bees usually build their combs continuously from one end to the other of these hives, and often project them some distance beyond the ends of the hive, making combs 6 and 7 feet long, and only from 10 to 4 inches wide. We transferred some of the log hives, in Puerto Principe in the dense forest, which were placed on the ground, and the bees had extended their combs several feet beyond the ends of the hive into the thicket. They were connected with fine brush and vines, and so firmly attached that after smoking the bees back into the hive, we had to sever all these attachments with a sword, when we cut off the combs even with the end of the hive, and placed them in a basket, which made a feast for a dozen men who had come on horseback six miles to witness the operation. This honey was pure Campana, freshly made, and was the most delicious we have ever tasted. We transferred quite a number of these hives into movable frames in different parts of the Island, and it was amusing to witness the different expressions depicted on the faces of our

Cuban friends, at seeing the bees handled as though they were harmless flies. Extreme doubt mingled with fear, deepened into astonishment, ending in surprise, admiration and joy.

On one occasion, after handling some Italians in a manner greatly exceeding their expectations, they declared that their "creoles" (native bees) could not be thus handled with impunity. So we selected a fine, populous colony, occupying one of the long board hives described above. We carried the hive under the shade of an orange tree, about 20 feet from the apiary, laid two small sticks on the ground, and stood the hive on end on these sticks. We then took an empty hive of the same dimensions and placed on top of this, one containing the bees, the top of the empty hive extended over 10 feet high, and was held in place by the branches of the orange tree. The combs in the lower hive extending from end to end, it was a matter of only a few minutes to drum and smoke all the bees from the full into the empty hive, then putting a movable-frame hive on the old stand, and spreading a cloth in front, we dumped all those bees in a heap in front of the hive; and soon all entered and clustered on some sheets of wired foundation previously placed in the hive. We then removed the combs from the drummed hive, placed the brood in frames and gave them to their original owners in the new hive, and in a couple of days removed it to the Casanova apiary—one and a half miles distant, where it has since multiplied to 5 colonies.

From what we have said it might be inferred that the Cubans are far behind our own countrymen in the management of bees; but leaving out of the question our progressive bee-keepers, and confining ourselves to those who still use the log gums and box hives with stationary combs, and tried by this rule, the Cubans are far in advance. They have less superstition, and manifest more intelligence in their work; they never kill their bees to get their stores, but smoke them from one end of their long hives clear into the centre, then cut out the combs until the brood is reached, then from the other end, perform the same operation, thus saving the brood and securing the honey instead of killing the "goose that laid the golden egg."

The honey press is made as follows: A solid log, about 2 feet in diameter, and 12 feet long, is hollowed out for about 8 feet from one end into a complete trough or shell, holding often 2 or 3 barrels. The remaining 4 feet is cut down squarely for about 6 inches, forming a cavity holding about two bushels of comb honey. A wooden follower closely fitting into this cavity is placed on top of the combs, and a long lever fastened into the end of the trough, is brought down onto the follower, and the honey is all pressed out and runs into the trough, leaving the wax in the cavity, from whence it is collected for market.

In the region about Puerto Principe large numbers of these old honey

camps are to be seen, where, previous to the war, from one to three thousand hives were worked in single apiaries, and where those marvelous quantities of honey and wax came from.

The native bees in Cuba are the common black, imported from Spain more than a century ago. They work vigorously all the time, and under favorable circumstances, produce marvelously, forming a standing contradiction to that old lying whim, that bees will work in warm climates, only enough to supply their own demands.

There is another bee, indigenous to Cuba, which produces a very nice honey, but whose habits are entirely different from any bee our readers have ever seen. Of these we propose to speak hereafter.

Bees & Honey at the London Health Exhibition.

A correspondent in the London *Horticultural Journal* remarks as follows on the Bee and Honey Exhibits, Honey Biscuits, the use of the Magic Lantern as an aid to apicultural lectures, etc.:

A few words will here be in season respecting the exhibits in connection with bees and bee-keeping at the Health Exhibition. All those interested in honey and bees should not neglect to pay a visit to this department. The second turning to the right after entering the Exhibition at the main entrances in Exhibition Road brought us into the midst of a very good collection of appliances and products in the shape of honey, wax, etc. The first thing to attract attention is a capital model of a swarm of bees. It is so good that at a little distance it is like a real cluster suspended from a branch. There is a fair display of honey, both in the comb and in bottles. The extracted honey is nicely put up, and we must hope that the public will learn to appreciate pure English honey, and to cease to countenance the importation of adulterated foreign stuff.

Messrs. Huntley & Palmer, the famous Reading firm, have lately brought out some exceedingly nice biscuits, called "Honey Drops." Visitors must not fail to taste them, and they will certainly appreciate this new biscuit. Immense quantities of honey are now purchased by this firm for the manufacture of this pleasant food, and this will help to provide a market for English produce. Honey is largely employed in other manufactures, and we should have liked to have seen more exhibits showing the utility of honey in foods and medicines, and so show it is conducive to health. Among the many interesting exhibits is one which, although in its present state most instructive, might be much enlarged and improved.

We refer to Mr. Abbott's case of various natural objects explanatory of the science of bee-keeping. The

various queens, workers, and drones are preserved and thrown together with the varieties of comb, queen-cells, etc. The depredators of the hive are shown in the shape of the wax moth and its grubs, and the damage done by these loathsome maggots is shown by a piece of comb tunnelled by the moth grubs and covered with their spider-like web. Much of the natural economy of the bee-hive can be gathered by a careful inspection of this case. With this class of instructive exhibits must be connected the magic lantern slides shown by Mr. A. Watkins, of Wilcroft, Hereford. These are most instructive, and some of them as amusing as they are interesting. The queen, worker, and drone are capital photographic slides, and vivid recollections of various cottage apiaries come to the mind when looking at the amusing picture of "All Dead but One." By the use of such slides, a lecture on bee-keeping is made doubly interesting, and such illustrations enlarged on the sheet are highly appreciated.

We have ourselves, when lecturing on bee-keeping, used such slides, copied from the appearances under the microscope, but these photographic slides are a great improvement on pen-and-ink sketches. We must not neglect to give the due meed of praise to those who, at much expenditure of time and trouble, have placed such good collections of bee-furniture on the stages. Messrs. Neighbour, Abbott, Overton, Baldwin, and others have such good exhibits, that the various schools of bee-keepers must find sufficient to appease any amount of longing for what is good and substantial. Smokers, feeders, extractors, hives, supers, and a host of other necessities and luxuries are all there represented.

How the "Queen" was Captured.

We allude to the Queen of England, and not the queen bee. The following from the New York *Sun* is sent to us by a correspondent, who desires to have it in the BEE JOURNAL. As it gives some facts about the way in which American honey was introduced into England, it will, no doubt, be read with interest. Some of the items mentioned, we know are true; but some of the assertions we have not so much confidence in. While all of the items may represent very nearly the facts in the case, as we do not know, we cannot fully indorse them, but give the article for what it is worth:

"While California is the greatest bee-ranching or honey region in the world, owing to the excellence of its climate, and the endless variety of its honey-yielding flowers, the quality of its honey does not excel, even if it equals, that of the honey produced in New York State," said a large wholesale dealer.

"One of the most extensive bee-culturists in this or any other country," he continued, "is Capt. Hetherington, whose apiaries along the Cherry Valley Creek, in Schoharie county, annually turn out over 100,000 pounds of the choicest honey. It takes nine men and two steam saw mills five weeks to prepare the lumber for the boxes in which the honey is made by his bees. Nearly 150,000 panes of glass, about six inches square, are used in these boxes. Capt. Hetherington has at work, this season, nearly 2,500 colonies of bees. These are not all on his own premises, but are scattered among the orchards and fields of farmers along the creek, to whom he pays a rent for the privilege of his bees working in the clover, buckwheat, or whatever blossoms are in season on the farm. The care of these bees does not fall upon the owner of the land. Capt. Hetherington keeps men and teams constantly employed looking out for them. He has received as much as \$26,000 for one season's crop.

"Another large York State bee-keeper is C. B. Isham, of Peoria. Up to 1879 there was no market in England for American honey. The English dealers would not handle it, and the periodicals devoted to the bee-keepers in that country, cried it down in every possible way. The reason for this was that they knew the superiority of American honey, both in flavor and appearance, over the British article, and were aware that if it was once introduced in London, it would be a great blow to the trade in the home supply. There was a smart Yankee named Hoge working for a grocery in this city, and he assured his employers that, if they would give him the commission, he would manage to place American honey on the English market. A large lot of Isham's honey, which the firm was then handling, was packed, just as it came from the hives, and Hoge was sent to London with it. He found he needed all his Yankee ingenuity and acuteness, for he met with universal opposition among the dealers. He labored with them for weeks to no purpose. In conversation one day with the proprietor of the hotel at which he stopped, the latter told Hoge that if he could manage to have his honey introduced upon the table of Queen Victoria, it would solve the problem at once, for if she was pleased with it, she would communicate to Hoge through the Lord Steward. This communication once made public, would make American honey the fashion in England.

"A former Lord Steward was a friend of the hotel keeper, and was at that time engaged largely in the manufacture and sale of pickles. This man the landlord introduced to Hoge. They dined together. Hoge gave the pickle man an immense order for his goods, to be sent to the American grocer. More wine followed, and before the ex-Lord Steward went away, he promised to use his influence to have the American's honey introduced on the royal table. He succeeded in inducing the then Lord Steward, Sir

John Cōwell, to accept a box of honey for the Queen, and to serve it on her table. The Queen was so delighted with the honey that she directed the Lord Steward to present her thanks to the donor, to order a supply of ten cases at once, and to keep American honey constantly on the royal table.

"Hoge lost no time in making this communication public. The consequence was, that the opinion of American honey changed at once, and Hoge came back to New York secretly laughing at the Britishers, but rejoicing over an order for 500,000 pounds of American honey for the English markets, which he carried in his pocket. The demand for it has increased ever since, and the trade that was started in New York State honey is now largely shared in by the California product.

The Use of Comb Foundation.

A correspondent of the *Farmers' Gazette*, Dublin, upon the question of comb foundation for storing honey and for brood says:

The Germans, for the past twenty years, have used impressed sheets of wax as a foundation for comb. The bees thin out the so-called foundation to the natural thickness, and use up the shavings to form the walls or cells in which the queen deposits eggs and the workers store pollen and honey. The bees thin it so accurately that epicureans cannot tell comb honey with such foundation from that wholly made by the bees. The most promising use of comb foundation is in the brood chamber. It is astonishing how rapidly the bees will extend the cells and the queen fill them with eggs, exactly five cells to the lineal inch, or twenty five to the square inch, when used for worker brood solely. The real advantage is to ensure worker brood, and to furnish wax, that the bees may be free to gather honey and store it, instead of elaborating wax.

If we wish to test the actual value of foundation, we select two strong colonies of bees; we supply one with comb foundation and withhold it from the other; we find this last sends fewer bees to the field, as the majority are engaged in the art of wax selection. The other colony, furnished with the so-called foundation, gains much more rapidly in honey, with less food consumed. Foundation is becoming so popular and is made of better substance than formerly, whole sheets can now be used; and when we bear in mind that it takes twenty pounds of honey to produce one pound of wax, it will be seen that the bee-keeper who uses comb foundation largely, has an immense advantage over one who does not. This foundation was originally imported from America, but now it is made in Ireland.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

CORRESPONDENCE

For the American Bee Journal.

Hiving Swarms of Bees.

G. M. DOOLITTLE.

After reading W. Z. Hutchinson's article under the above heading, in a late number of the BEE JOURNAL, I cannot help but think that he and others do not understand how to treat swarms issuing with queens having clipped wings. The ease with which natural swarming is conducted where all the queens have their wings clipped, is one of the greatest reasons I have for clipping queens' wings.

Because the queen has her wing clipped, it does not follow of necessity that the swarm must be hived on the returning-plan, nor that the queen should be lost in the grass or stepped upon as Mr. H. says; for, in an experience covering a period of 14 years with every queen's wing clipped in my apiary, I have yet to step on, or lose the first queen from any cause arising from her having a clipped wing. In fact, I am so well pleased with the plan of natural swarming, with queen's wings clipped, that I am led to give my plan of treating such swarms, so that the reader may compare it with Mr. H.'s, and thus decide which to adopt. If I shall so explain it that any of the cares and burdens of my fellow apiarists are lightened, I shall feel well repaid for my effort in the explanation.

Before proceeding, I wish to say that Mr. H. has given us the best article on hiving bees where the queens are allowed to go with the swarm, that I have ever seen in print; for he gives us a view of some of the hard work, climbing of ladders, despoiling of an orchard by sawing off limbs, etc., which always attends that plan; and had he told us of swarms settling on the large trunks of trees, and in other places where scraping and smoking the bees off was the dernier resort, the picture would have been complete.

For the past five years I have hived very few swarms by the returning-plan, but when I do the plan is thus: When a swarm is seen issuing, I (or Mrs. D.) step to the rear of the hive and then look on the grass to one side of it to see if there are many bees there, thereby indicating the presence of the queen; and if not, step up on that side and glance over the ground in front of the hive. If the swarm has nearly done issuing, the queen is readily found by a little cluster of bees being about her. If just commenced to swarm, look at, or near the entrance where she will be seen running as soon as she comes out. Have on hand a round wire-cloth cage, 1½ inches in diameter by 8 inches long, made by rolling a piece of wire cloth around a stick, and sowing the sides together, when a stopper is to be fitted in each end.

As soon as the queen is seen, place the cage in such a way that she will crawl into it, and if a few bees go in with her, all the better. Now move the old hive back, and place in its place the one which the swarm is to occupy, when the cage with the queen is to be laid near the entrance. Place the old hive where you wish it to stand, or move it up beside the new hive at right angles, *a la Heddon*, as you prefer. Have on hand two sheets, one of which is to be placed on each of the hives on either side nearest the one now awaiting the swarm, so that they can be spread over them should the swarm attempt to enter these hives upon returning, which they rarely will do if the queen, with a few bees, is left at the entrance of the new hive. Leave the queen caged until nearly all the bees have entered the hive (or become clustered on the outside, as they sometimes will do), and are quiet, when you will let the queen go in. By thus keeping the queen caged, you will avoid the difficulty of her running out, and the bees with her, as spoken of by Mr. H.

If they are clustered on the outside of the hive, let them become quiet after the queen is out of the cage, when you will detach a few and start them to running into the hive; then detach more bees, and so on until all have run in.

If several swarms come out together, more sheets are needed, so that if more than the right proportion of bees draw toward one of the new hives placed on the old stands, a sheet can be thrown over until they go as you wish them to. But, as I said at the outset, this plan of hiving does not necessarily follow having the queen's wing clipped, although many prefer it. The simplest plan, and the one I use most, is to go to the woods and cut a light, tough pole, which will reach to the top of my tallest tree, providing that it is not more than 20 to 25 feet high. If swarms attempt to cluster higher than this, I always use the returning-plan above given. Have the large end of this pole sharpened so it can be pressed into the ground when necessary. Near the upper end of it fasten a few dry mulien tops, or a roll of black rags, as large around as your arm, and a foot long, when your pole is ready.

When a swarm issues, proceed to get the queen as before, and when caught, secure the cage to the black bunch at the top by means of a bent wire. Raise the pole in the air, and keep it where the bees are the thickest, when they will often alight on the pole; and if not, they will soon select a spot to alight upon the same as they would if the queen was flying with them, for her presence is known to them just the same as if she had her wing whole and was among them.

As soon as they begin to alight, place the pole in such a position that the queen and black bunch comes in the place they are clustering, and leave it thus while you are preparing a hive for them. When they are partially clustered, raise the pole, or push it up and out, so that the queen and bunch of rags, with the bees on

them, is a foot or so from the limb, when all the bees will cluster with the queen; after which you can carry them wherever you please, the same as Mr. H. does his branch after he has cut it off.

You should also hive them as he tells you, by first detaching a small part of the cluster, and after they start up the call of a "home is found," detach more, and lastly let the queen go in.

No matter in how bad a place they cluster, the operation of getting the swarm on the pole is always simple, and there is no need of being in a hurry, for they cannot go to the woods if left hanging on the pole in the hot sun all day; for should they attempt it, they would soon come back to their queen, as I have often had them do.

Now we will suppose that the second, third or fourth swarm issues before you get ready to hive the first (a thing which very often happens), you have not got to work as did Mr. H. with his fountain pump "till you are almost in despair" to keep them apart, but simply let them cluster on the pole; and you are at liberty to prepare the second, third, or fourth hive, as the case may be, leaving a queen in front of each hive except the first, as that has the queen on the pole. When all are clustered, take the pole and carry it to one of the hives having a queen in front of it, when you will proceed to hive them as at first, till you have got the right proportion of bees for one hive, then go to the next, leaving enough for a colony there, and so on until all are hived as you wish them.

All is done with a perfect ease and certainty, which no other plan can give. I often leave the bees hanging on this pole two or three hours, or till I get other pressing business done, when I hive them at my leisure; the only caution being necessary is to see that the pole is so fixed that it cannot break from the great weight of bees, and that the queens not with the cluster have a few bees with them to feed them, or are otherwise fed.

Again, if I wish to hive two or more swarms in one hive, as I frequently do in the latter part of the honey season, I do not have to hunt out the queens, for one is kept with the swarm, and the others I let go back into their old hive.

One more item, and I leave the subject. Many seem to think there is danger of losing the queen when her wing is clipped, if a swarm issues when the apiarist is not at home; but such is not the case, for some of the returning swarm is sure to find and cluster about the queen if she does not get back. When I return, after an absence, I go over the yard, between each row of hives, looking on the ground, and if a swarm has issued, and the queen failed to return, I find a little knot of bees on the ground from the size of a butternut to that of a goose egg, in which will be the queen. Now comes the perplexing part to many, which is, to find where a swarm found hanging on a limb, or where such a queen came

from. In case of the queen, I leave her where she is until nearly sunset, so there are but few flying bees in the air, then she is taken from the bees, when they will go back to their hive, setting up a joyful hum, after which I let the queen go with them.

In case of a clustered swarm, I hive all but a half pint or so of bees, which are kept in a cage till nearly sunset, when they are let out, and tell me, as did the others, just the hive the swarm came from.

In the above I have given a few of my reasons for preferring queens with clipped wings, and I am willing to leave the matter with the readers, to choose which they prefer after having a fair hearing of both sides of the question.

Borodino, N. Y.

For the American Bee Journal.

Reversible Frames Again.

A. H. DUTTON.

It is now an admitted fact by many apiarists, among their number being some of the largest and most successful honey-producers on the American Continent, that under certain circumstances brood-frames, capable of reversal, possess advantages which do not belong to the ordinary style of suspended frames. Such being the case, the question would naturally arise, with those who are unaccustomed to their use, "What are the most feasible methods of making the various patterns of suspended frame reversible? and what are the conditions under which they can be employed to advantage?"

Without attempting to answer the last inquiry, which has already been done very fully by various writers in the different bee-periodicals, I shall meet the first question in detailing a system for reversing frames which for simplicity, thorough practicability, ease of application to any style of frame, and inexperience, is ahead of anything I know of in this line.

Presuming that the frame which you wish to make reversible, is the Langstroth, cut off the corner projections and straighten the end-bars by inserting inside the frame in close contact thereto, strips of wood, tack them securely in position (the bars at the ends of the frame are now about $\frac{1}{2}$ inch in thickness); next drive two stout wire nails, each about $\frac{3}{8}$ of an inch in length, parallel with each other, into the outside of the end-bars of the frame; do not drive them clear in, but allow them to project $\frac{3}{8}$ of an inch, and insert the nails across each end of the frame exactly in the centre (see diagram). This completes the arrangement of the frame.

We shall now observe a slight change in the hive itself. The metallic edges on which the projecting corners of the ordinary suspended frames rest, is removed from their position on the rabbeted edges of the inside end-walls of the brood-chamber, and transferred to the middle of the walls, so that when the nail projections of the prepared frame rests

upon them, the top of the frame will occupy the same level in the brood-chamber as it does when the usual style of frame is employed. The metal strips should stand out from the walls $\frac{1}{8}$ of an inch.



To secure this result effectively and easily, cut two strips of card-board about 3-32 of an inch in thickness and $\frac{3}{8}$ of an inch wide, and the whole length of the inside end-wall of the hive, and tack these lightly in position $\frac{1}{8}$ of an inch below the centre of each end of the brood-chamber. Now tack the metal strips, which should be $\frac{1}{2}$ of an inch in width, and the same length as the card-board strips, securely over the latter, leaving $\frac{1}{8}$ of an inch projection above. (See diagram.) This finishes the reversing fixtures.



It will now be found, on trial, that the frame will securely rest by the nail projections on the metal rabbets, whether top or bottom be uppermost; and that the reversing of the same consumes no more time than it takes to turn the frame over in the hands after it is removed from the hive. It is free from sharp points and edges at the corners (which, in my opinion, are objectionable in any style of frame), and when in the hive its lateral motion if anything is more perfect than the usual style of suspended frame; and now I think I have said as much as can be mentioned in favor of any pattern of reversible frame.

Brussels, Ont.

From the Los Angeles News.

Production of Surplus Honey.

DR. E. GALLUP.

I wish to describe my method of managing bees for surplus honey; and in this climate we must commence to put them in condition by the middle or the last of February. The first thing is to select the colonies which are desired to breed from, and then build them up strong by fitting the brood-chamber with frames well filled with hatching or sealed brood, from other colonies; and when the weather is not favorable for gathering food, I feed them a little every evening, so as to keep the queen at her work. Then I examine every colony, and any that does not equal my expectations, I ascertain the cause, and if the fault is in the queen, she is killed just as soon as I can succeed in getting natural queen-cells; for I prefer the natural to the artificial queen-cells whenever they can

be had, and especially early in the season.

Now, just as fast as I get young laying queens, I build the bees up, until the time the honey harvest commences; either by placing empty combs as fast as needed, in the centre of the brood-nest for the queen to fill, or by giving brood from other colonies to strengthen up; and as soon as the brood-chamber is well filled with brood, providing the honey harvest is on hand, I put on the supers; otherwise I sometimes take a frame of brood to strengthen a weaker colony. I never think of putting on the supers until the brood-chamber is completely filled with brood.

Every young queen that begins to lay in March, produces, by the above plan, an excellent colony for storing surplus, as there is scarcely any disposition to swarm. If the colony is as it should be, many of those young queens will require two supers, as one will not give sufficient room for the amount of bees she will rear. All the old queens that are saved in the apiary, must be built up strong, by spreading the combs judiciously, and inserting an empty comb in the centre of the brood-nest for the queen to fill with eggs; for, remember, that almost double the amount of eggs can be secured by so doing, than if they are left to manage their own affairs.

In a good season every colony can be brought up to the standard, and the swarming all done by the middle of April. I prefer the natural swarms if they come early, and when artificial swarms are made, I give the division natural and nearly mature queen-cell. If I want any increase, I allow all colonies that swarm early, to swarm two or three times; because every young queen that I can get to breeding early in March, can be brought up to the standard in time for honey gathering.

If I do not want increase, I get as many young queens in the place of old ones as I possibly can. In a poor season every colony cannot be built up in time for surplus; because I take brood from some colonies to build up others for surplus. Those which I take brood from, I only calculate to make into profitable colonies for wintering.

Now, understand that if honey is wanted, we must have bees, and any colony that is strong in bees will store honey, even if there are not over a five-days' honey-flow in the season. How is it that Mr. Doolittle manages to get a crop of surplus honey every season in a comparatively poor locality? Simply by managing his bees on a plan similar to the above.

I want all the supers taken off by Feb. 1, so as to confine the animal heat in the brood-nest; and supers should be put on only as fast as the bees are in condition to occupy them. Now, providing the weather is favorable, we can put in one or two frames of foundation at a time in each hive, and have the queens fill them with eggs. A frame of foundation filled with eggs by a good Italian queen, is a sight worth looking at; and I have always had the best satisfaction in

having them filled in the breeding-season, early before the honey-flow commences.

You will probably say that the above plan makes work; but for what are we keeping bees if not for profit? and if we expect to have profit, we must work for it. The man who keeps bees and does not work with them, and yet expects profit, will always be disappointed. How is it that Mr. Miller, of Bell Canyon, always has a crop of surplus honey every season? Last season he had eight tons, while some of his neighbors had nothing? He worked with his bees. His bees never starve to death by the wholesale as some of his neighbors' bees do. In all my life-long experience in bee-keeping, I have always found that bees are self-supporting in the poorest season, if properly managed; and I have had experience in bee-keeping in Canada, Vermont, Wisconsin, Northern Iowa, and now three years in California. In some seasons and localities I have had to stimulate my bees by feeding them in the summer, but have never had to feed them in the fall or winter. I always save the poor honey which is unfit for market, and feed it to the bees.

For the American Bee Journal.

Overstocking a Locality.

J. E. POND, JR.

The question of overstocking has been more or less of a bug-bear, with a few, since I first began to keep bees, nearly 20 years ago. Every little while some poor fellow, fearful, I suppose, that all the honey yielded by the flora of the country, would be gathered by others, and none left for him, would raise the cry of overstocking, and over-production.

What are the facts which the last 20 years have shown? First, bee-keeping, as a business, has grown enormously; hundreds now pursue it successfully where only one was engaged in it when the BEE JOURNAL first started into life; and not only has this large increase been made in the accession of members to our ranks, but by means of better and more advanced methods, hundreds of pounds of honey are now produced as a consequence of these improved methods, while under the old regime, hardly a pound of surplus was obtained.

Now, if these results have followed during 20 years, and I defy any one to prove the contrary, what need is there to fear overstocking in the future? "But," the reply comes, "we do not mean overstocking in the whole country, but certain small areas that we call our feeding-ground whose radius is equal to the flight-range of our bees." Well, what danger is there of overstocking even that territory? A single acre of white clover will furnish, in a good season, at least 100 pounds of surplus each to 25 or 30 colonies. Spin this out to a diameter of 8 or 10 miles from a given location, and it is easy to be seen that it will take more bees than by any

possibility will ever be kept in a locality, to overstock it.

But who can determine this question of overstocking? and how can they determine it? In a poor season, when the flowers yield no nectar (and we do have such seasons), a very few colonies might starve, not because the locality is overstocked, but because there is no honey to be gathered. Has any one ever considered for a moment the state of things that must necessarily exist, in order to overstock a locality? Simply this: It is well known that the flowers are constantly secreting nectar during the time they are in bloom, and this nectar, in order to be utilized as honey, must be gathered at once, or it will evaporate. If a certain flower secreted a certain amount of honey, which, when gathered, exhausted its supply, then there might be some strength in the argument in favor of overstocking, but such is not the case; for the nectar thus secreted must either be gathered at once, or it evaporates and is lost, and in either case a fresh supply is at once secreted to supply its place. In about five minutes after the nectar has been gathered from a white clover or other blossom, more is secreted, and sufficient to load up any bee, even if it is as large as "*apis dorsata*."

Now, to overstock a locality, every honey-yielding flower within that locality must be visited by a honey-bee oftener than once every five minutes during the duration of its bloom. I, myself, do not know the number of colonies of bees required to accomplish this work, but it is easy to see that it will require an immensely larger number of colonies than it is at all presumable will ever be kept in any locality, either by one or many persons.

When I first began keeping bees, I had some fears in regard to the matter; but as I have seen the business increase, and the honey yield increase ten times more largely in proportion, than the increase of bee-keepers, and that, too, without glutting the market, or causing any falling in prices, I have concluded that the danger is fancied, and not real; and more particularly do I so conclude when I find that hundreds of colonies are kept at a profit in our large cities, where it would naturally be supposed that no honey at all could be gathered, unless yielded by stones and bricks. Some localities undoubtedly give larger yields than others, but that is a matter of chance or design in the growth of honey-yielding plants and trees, and does not in anywise form a factor in the problem under consideration.

Foxboro, Mass.

For the American Bee Journal.

A Visit to G. W. Demaree's Apiary.

W. T. STEWART.

On July 5, I made a visit to Mr. G. W. Demaree's apiary, where I remained two days and nights. As the readers of bee-papers are "well aware" he is an enthusiastic writer, and if you will pay him a visit, as I

have done, you will at once see that he is enthusiastic in the whole business of bee-culture, especially the rearing of fine queens. Mr. D. is a lawyer and farmer, and has plenty of this world's goods, and no children to leave it to; so he has almost given up law and farming, and concentrated his whole time and talent upon bee-culture.

His apiary consists of about 180 colonies and nuclei; very tastefully arranged. He prides himself very much upon his improved Italian bees, and well he may, for his Italians are indeed beautiful. He and the Cyprians have had so many "ups-and-downs" and disputes as to who should "boss" the apiary, that he has discarded the breeding of them, and breeds only Italians.

He uses the Jones' perforated zinc or drone-excluder, and says that it is a perfect success, and I agree with him in this. He took me out to his sweet clover field, which is so thick and tall that it is nearly impossible to go through it, and the bees were making it fairly hum. He uses a half-story (that is a story half the depth of the Langstroth) for extracting purposes. The combs are shallow and straight, and the bees fill and seal them very quickly. When full he lifts the whole set off and puts them into his extracting-room, in which there is a bee-escape, and in a short time the bees leave it and go home, when it is ready for the extractor; thus he saves the labor and time of brushing bees from the combs in the hot sun. The plan is a good one, and in the future I shall use it largely in my own apiary.

He has horse-power and also foot-power machinery for hive making.

In passing through his queen-rearing department, I stopped to read on the slates, which hung on each hive, but they were embellished with hieroglyphics only, such as none could read, but he understood them.

I expected to see many things at Mr. D.'s apiary that were new to me, he being a sort of natural genius, and in this I was not disappointed. Many a little idea I caught and stored up in my memory for future use. Mr. D. is an incessant talker, and talks about bees from the beginning to the end. He despises meanness in any form among bee-keepers, and lives up to the old adage, that "Honesty is the best policy."

Mr. D. is president of the Kentucky State Bee-Keepers' Society, and we may naturally expect that he will spare no pains in getting up a good programme for the fall meetings. We hope that he and Dr. Allen, the secretary, will arrange to have a bee and honey show at the beginning of the Exposition at Louisville, and also at our regular fall meeting at Eminence, Ky. Right here let me say to Kentucky bee-keepers: Let us each donate any amount that is necessary, to raise money enough to offer large premiums on the best display of honey, bees, etc., such as is customary to give premiums on; and then let us get up a rousing show. All try to get the premium by an energetic effort

As many of us know that swarms have, very frequently, deserted the hives after being hived, this season, and bee-men have different theories as to the cause of it.

After experimenting a good deal, I believe I have found the cause to be the absence of pollen in the new combs for use in rearing brood. Just at the swarming season there were no flowers in bloom that yielded pollen, and on examining many new combs, after the bees had deserted them, I found them full of eggs and entirely destitute of pollen. I then hung old combs containing pollen, in each hive, and not one swarm deserted after so doing.

I proved to my satisfaction that the reason bees or swarms desert their hives is because they have not or cannot get pollen at the time.

If I knew of a good place to which to move 75 colonies of bees, in order to secure a fall crop of honey, I should be pleased to try the experiment, as I am now ready to do so, and then report whether it pays to practice migratory bee-keeping.

Eminence, Ky., July 8, 1884.

What and How.

ANSWERS BY

James Heddon, Dowagiac, Mich.

Comb Honey, or Extracted?

1. Which is preferable, producing extracted honey at 12½ cents per pound, or comb honey at 20 cents per pound? markets and all else being equal.

2. After extracting, at the close of the season, do you let the bees clean the empty combs before storing them away? If so, how do you manage it so as not to induce robbing?

3. Would we not, as a rule, get as straight combs in your cases of 4¼x-4¼x1½ sections with ½ inch starters, as if the full-sized were used?

M. F. TALMAN.

Rossville, Kans., July 19, 1884.

ANSWERS.—1. Much depends upon the individual and the location. In regard to what respects, see another answer in this, or perhaps the next issue. As a general thing, I think I should prefer producing extracted honey at the prices you quote.

2. No; I do not. A good extractor will throw them clean enough for all practical purposes.

3. I think you would, but you would get drone comb, and lots of brood in it, if you used full sheets of worker foundation below, unless you also used a queen-excluding honey-board. A letter, just this moment opened, from a bee-keeper of experience and close observation, contains the following paragraph: "I have used a good many sections with V-shaped foundation starters, all of which are built perfectly straight and even, and mostly drone comb. There was no drone comb below, and still the queen

did not go above to occupy drone comb in the sections. I account for it by the use of a good honey-board."

Small Black Ants in the Apiary.

Will the small black ant injure or annoy my bees in any way? Can you tell me what to do to prevent their climbing on the bench? L. HOYTE.

Tuscarora, N. Y.

ANSWER.—You need not be at all alarmed by the presence of ants about your hives. The bees will not let them come inside. They are working around crevices and in dead-air spaces where they enjoy the heat from the colony which assists in developing their young, etc. As our hives are so constructed that all surfaces are either next to the bees or out-door air, we never find them any more concealed about the hives. Sometimes they bother us slightly by attacking our surplus honey after its removal. There are various methods of preventing their annoyance in this respect. We usually crate our honey at once, in ant-proof crates. Where this is not done, some pile it on tables and benches whose legs are in dishes of water. Some poison them with insect powder, etc.; but I would not advise it, as the poison might get into the honey. We have built a new honey-house with stone foundation, and it is ant-proof except at the doors and windows, and we have no trouble from ants whatever. Keep things clean.

Bees Uncapping Honey.

1. What is the cause of bees uncapping the honey after capping it over once?

2. Which is the best way of getting the bees out of the boxes that are filled with honey? J. HURST.

ANSWER.—1. A sudden cessation of the flow of nectar, and at a time when the brood-combs are not crowded with honey, especially in large hives. The bees seem to fear being caught in winter quarters with their honey in an unavailable position.

2. Answered on page 458, present volume.

Transferring Bees.

1. Will Mr. Heddon kindly explain the "driving" process, as practiced by himself, in transferring bees from box to movable-frame hives?

2. What is a "hiving-box"?

BEGINNER.

ANSWERS.—1. To drive a swarm of bees from a colony, if in a box-hive, we turn the hive bottom upwards, (after smoking the bees,) and place an empty box on top of the hive (or what was the bottom), and by drumming on the box-hive, the bees, and nearly always the queen too, will desert the combs, going up into the box. The drumming must be radical, after striking the hive, so as to jar its whole contents. This forced swarm can be hived the same as any swarm, only it must be placed upon the old stand, the old box-hive being removed

to the new stand, as a forced swarm will not so readily mark and accept a new location; most of the bees returning to verify Father Langstroth's axiom:

"A bee removed against its will,
Is of the same opinion still."

2. In these days of improved hives, we do not go after a swarm with the hive, but place the hive on its future stand, and go after the swarm with a box or basket arranged and kept for that purpose, and it is designated "hiving-box" or "hiving-basket."

SELECTIONS FROM OUR LETTER BOX

When to Sow Sweet Clover.

When is the best time to sow sweet clover? If sowed in the fall, will it bloom next year? I have 16 colonies, and have no pasture for them.

Venice, Ill.

H. C. SMITH.

[Sow any time. If sown early in the fall, it will soon come up, and bloom in the following July. Fall sowing is best, because it saves one year's time.—ED.]

Basswood a Complete Failure.

The harvest is past, and bees have gathered only about ¼ of a crop. White clover has been quite plentiful, and we have had all kinds of weather, but it did not seem to affect the secretion of honey. Basswood was a complete failure. I moved 60 colonies to a belt of basswood trees, and I can bring back all the honey in one keg. Let bee-keepers in different parts of the country report, so that we may be guided in selling the small amount of honey which we did get.

JAMES NIPE, 137.

Spring Prairie, Wis., July 24, 1884.

Satisfied.

I have received that beautiful book entitled "Bees and Honey," and have read it carefully and with pleasure. I would not take five times the price of it, to be without the information I have gained from it. The Weekly BEE JOURNAL comes regularly, and is highly appreciated.

Sheridan, Ark., July 16, 1884.

Introducing Virgin Queens.

I have discovered a very valuable method of getting a colony of bees to accept a virgin queen, which is as follows: Take a hollow tube with an opening large enough to receive the upper end of the queen-cell. Cut open the upper end and put it into the tube about one-half the length of the queen-cell. Then cap the lower end with a thin skin of wax, put the queen into the tube, and close it up with a sponge saturated with honey for the queen to feed upon, and put the whole thing between the frames where the queen is to be introduced.

Any colony of bees will accept a virgin queen as soon as they begin building queen-cells, which will be in about 24 hours. In most cases, I have succeeded immediately after their old queen was removed from them. I think that it is the best plan I have ever tried, and would be pleased to know what others think of it. So far, bees have done but little work. I have about 1,000 pounds of honey, and 25 swarms from 80 colonies. To-day is the first good honey day that we have had since basswood began to bloom, and I judge they will gather 10 pounds per colony within 24 hours. If this weather holds out for 4 or 5 days, we will have a crop of honey from that source; and if we get a shower of rain, clover will yield honey for 2 weeks or more.

A. WICHERTS.

Mattison, Ill., July 19, 1884.

Wolf-berry.

The bees which were wintered in dry, well-ventilated cellars, in this locality, came through in good condition. The spring was cold and wet. I had my first swarm on May 28. Bees have done well on raspberry, clover, and a plant of which I enclose a specimen. It grows in thick clusters about 3 feet high. What is its name? Linden has been in bloom 5 days, and the bees are busy.

JOS. GILBERT.

Mankato, Minn., July 11, 1884.

[The plant is *Symphoricarpos occidentalis* or wolf-berry—a good honey plant.—T. J. BURRILL, Champaign, Ill.]

Wiring Foundation Unnecessary.

I have been experimenting with comb foundation, this season, and find that wiring it is entirely unnecessary. I fasten the foundation in frames, and place them in the top stories of hives which contain strong colonies, and let the bees draw it out, say half-brood thickness. If they store some honey, all the better, which will set up the young bees in house-keeping. Then place the frames in a new hive to put the bees on. There will be no warping or sagging, and I think it is much easier and cheaper than using wire. I hope Mr. Heddon will give this plan a trial, and report through the BEE JOURNAL.

PETER BRICKEY.

Lawrenceburg, Ky., July 19, 1884.

Quick Work.

On Saturday, May 31, at 12:30 p. m., I hived a swarm of bees on empty combs. On Monday, June 2, at 8:30 a. m., they had gained 30 pounds, all from apple bloom.

H. E. MITCHELL.

Greece, N. Y., July 13, 1884.

Honey Dearth Now.

Bees are not doing very well in Eastern Ohio. The weather has been too dry; we have had but little rain since the first of April. Bees have nothing to gather from.

JACOB OSWALT.

Maximo, O., July 18, 1884.

Bees with Diseased Feet.

I send you some bees that have diseased feet. It is something new to me. The bees are taking them out of the hives and carrying them off at a rate which will weaken them very much in a short time. I wish to know the name of the disease and the remedy, if there be any.

W. W. TRUSSEL.

Colby, Mich., July 15, 1884.

ANSWER.—The bees are weighted with the pollen masses of the *Asclepias* or milk-weed. This is illustrated in my Manual. I think the losses from this cause are not great, while I am sure that milk-weed is an excellent honey-plant. The bark-lice on maples and other trees can be washed off, in cities, where they have high-pressure water-works, by turning on the hose. The grovied females in May, and the young lice in June, may easily be overcome in this way.

A. J. COOK.

Lansing, Mich., July 19, 1884.

How to get rid of Ants.

Two years ago I struck upon the plan that is often used for rats and mice. I mean poisoning. Thoroughly poison a small quantity of meat or honey with arsenic or strychnine, and put it in wire-cloth cages, or in some way manage to keep it from every thing else, and place it in places frequented by the ants; and they will quickly vanish, at least mine have.

Saugatuck, Mich. W. B. HOUSE.

Fastening Starters in Sections.

If the top piece of the section is rubbed with wax, and the foundation put in moderately warm, the starter will be perfectly fastened, and with very little pressure. We use a Clark fastener, and have no further trouble with falling starters, since pursuing the above method. Bees have done well on white clover, in our vicinity, but we fear that basswood will be a failure. The weather has been cool and cloudy during the past week, thus checking the honey secretion; but clover still looks well, and, with favorable weather, may continue to yield honey for some time.

LIEBIE LONG.

Williamsville, N. Y., July 18, 1884.

Bees Not Busy.

Bees are doing but little work now. White clover was almost a failure. Our main hope now is on heart's-ease.

J. W. MARGRAVE.

Hiawatha, Kans., July 21, 1884.

Basswood Abundant, No Honey.

With us the honey season has closed, and we have to report only $\frac{1}{2}$ of a crop. No swarming this year. I have 80 colonies which I fed heavily during April and May, and all were exceedingly strong. They made a good start on locust, and filled their hives fit for winter, when the white clover came on in abundance; but it rained continually, and north winds prevailed during June. We hoped to

have a good flow of honey from basswood bloom, as the bloom was unusually abundant; but it came and went, never a bee looking at it. North winds have blown cold during the whole month of July, so far, and the mercury settles down to 38° and 40° above zero every night. Although my colonies have been extra strong all the season, only 5 swarms have issued, and now the colonies are idle and listless, killing drones, etc. None but experienced bee-men have a drop of surplus honey. E. A. MORGAN.

Columbus, Wis., July 21, 1884.

Honey-Dew Honey.

Bees are not doing well at present. My big crop of white clover honey proved to be honey-dew honey. Everything looks favorable for a big honey crop this fall, if it is not too cold; but what the result will be, I cannot foretell. Many of my customers say that they like the honey-dew honey better than any other that they can get.

D. R. ROSEBROUGH.

Casey, Ill., July 18, 1884.

Uncapping Knife.

Do all who have occasion to use the honey uncapping knife know how much nicer and easier it works if kept immersed in hot water as much of the time as possible while in use, or even dipped occasionally? Let those who have never tried the plan do so, and if not pleased I will be surprised.

"TYPO."

[Yes; that is the most approved method, and has been so stated many times in the BEE JOURNAL during the past few years.—ED.]

Bees Gathering Honey-Dew.

Bees have been gathering large quantities of honey-dew of late, but it is poor stuff. On the whole, bees have done fairly well so far.

W. H. STOUT.

Pine Grove, Pa., July 21, 1884.

Accidentally Disabled.

In the spring of 1883 I commenced with 22 colonies of bees, from which I received about 1,200 pounds of honey, and increased them to 44 by natural swarming. I sold 3 colonies, and wintered the balance without loss. Of these I lost one after placing them on the summer stands. The result of the season up to July 1, was only a little over 600 pounds of comb honey, with enough left, perhaps, to supply a family of nine members. Why my bees have done so poorly, I cannot tell. They were nearly all in fine condition when white clover began to bloom, and the bloom was quite profuse. From my 40 colonies I have had but 4 swarms, thus increasing my number to 44.33 of which I sold about July 1. I think that bee-keeping is a pleasant occupation, and though my profits have been small, I have taken considerable delight in the business. But from the fact of having been almost totally disabled in my back, by a horse which, in 1880, fell with me

with my foot hanging in the stirrup, and dragging me on the frozen ground at a fearful rate of speed until I was crippled, perhaps for life, I have thought it best to retire from the bee-business, at least for the present, and keeping only a few colonies for family use. With best wishes for the continued advancement of this ever increasing industry, I now withdraw from the active duties of the business.

F. M. REEDS.

Hindsboro, Ill., July 18, 1884.

Hybrids Better than Italians.

I have 28 colonies of bees in two-story chaff-hives. On June 10, from 2 hybrid colonies I extracted 56 lbs. of honey, and from 8 Italian colonies, 196 lbs. I think the hybrids cannot equal the Italians in honey-gathering. I sold 100 lbs. of the honey at 12½ cents per lb., which was shipped, and the balance in my home market at 15 cents per pound.

CHAS. HAAS.

Lower Salem, Ohio.

No Basswood Honey.

Bees have done well here until June 20, when there was a sudden cessation of the honey-flow. Some farmer's colonies swarmed as many as 4 times. There are a great many bees in Atchison County, Mo., and Southern Iowa. Rocky Mountain bee-plant grows in large quantities on the bluffs of the Missouri river, and bees do well when it is in bloom. We have hundreds of acres of goldenrod and other fall flowers. I am now Italianizing my colonies for the purpose of rearing queens. I have 34 colonies. Basswood was a total failure this year.

CHAS. HARROLD.

Hamburg, Iowa, July 21, 1884.

Neither Increase nor Surplus.

On page 452, migratory bee-keeping, as practiced by Messrs. Flanagan and Baldrige, is described. I received 90 colonies of bees from Mr. Flanagan, of New Orleans, La., on June 18, 1884. They were entirely destitute of stores, and depleted in numbers; and having arrived in the midst of the white clover bloom, they soon filled their hives with nice honey, but have yielded no increase or surplus, as we are having a severe drouth—there having been no rain for 4 weeks. Basswood has yielded no nectar this season, and the outlook is discouraging at present. Large numbers of bees are working on over-ripe raspberry fruit, and searching everywhere for nectar. They are killing drones and carrying all drone-brood out of the hives.

S. J. YOUNGMAN.

Cato, Mich., July 20, 1884.

"Tree-Trunk Method of Wintering."

According to my declaration as an expert bee-hunter, Mr. W. F. Clarke's article has brought to my mind some of my past experience in tree-trunk wintering of bees. Last fall I knew of 6 bee-trees, 3 in Ohio and 3 in Pennsylvania, in which all of the bees died during the past winter. Had they lived, I intended transferring

them into hives. I know of another tree which contained bees every year for 15 or 20 years, and the bees died during every winter for that length of time, when another swarm would occupy it as soon as the next swarming-season arrived. As the tree had been watched for the above length of time, Mr. C., in my humble opinion, and judging from what my experience has taught me, must find some other theory than "tree-trunk wintering," before he can claim the championship of making a grand discovery. With the best of feeling for Mr. C. and his new theory, I should have told the bee-keeping fraternity that the tree of which I spoke on page 459, contained about 1 wash-tub and 3 patent buckets full of honey, besides many combs.

COL. R. WALTON.

Industry, Pa., July 17, 1884.

Good Enough.

I have increased my colonies of bees 150 per cent., and taken from them an average of 70 pounds of white clover honey.

A. B. MASON.

Wagon Works, O., July 21, 1884.

Still Hunting.

The honey harvest, in this section, is about ended for this year. We have had an abundance of bloom, but the weather has been anything but what bee-men would desire. The nights have been very cold. I have colonies that swarmed about the middle of June, and have not yet finished their first set of sections. Basswood commenced to bloom on July 3, and I think it is all gone now. White clover will last sometime yet, but I never knew bees to gather much from that after July 20. We have seen some few offerings of comb honey in the market, but none finished well, so we do not think that there will be more than half a crop of comb honey, judging mostly from our own. We have waited patiently for Mr. H., of Centre Point, to explain something about the "glucose business." We know he has used large quantities of the article some way; so much so that he cannot sell honey in this market. We do know it has hurt the sale of extracted honey in Cedar Rapids. As we produce mostly extracted honey, and deal in it exclusively, we know what we are talking about. We want to hear from Mr. H. through the BEE JOURNAL.

T. B. QUINLAN.

Cedar Rapids, Iowa, July 18, 1884.

Hiving Bees, etc.

I have swarms of bees somewhat differently than Messrs. Hutchinson and Heddon. My plan is as follows: Take a common peach basket, separate the partially separated staves, that the bees may have ready ingress; also bore the bottom of it full of ¼-inch holes, attach a 6-inch strap to the centre of the bottom of the basket, with a snap of an old suspender, or of a tie-rein of a horse, at the end. Stick on the inside of each stave, and ¼ of its length, very narrow strips of old comb (lengthwise), and some on the bottom (inside); now have light

poles, say two or three different lengths, with a loop on the snap at the end of the strap attached to the end of the pole. When the bees have mostly collected on the bush or limb of the tree, attach the basket to the pole, jar the bees on the limb, hold the basket up so its bottom will touch the exact spot from which the bees were jarred, and the bees will go into it, then carry them to the bee-yard. They are simply collected in a basket instead of on a bush or limb. Put the basket on the frames of the hive, cover all with table or other cloth, shake the basket, and give two or three minutes time for them to run down into the hive. I would not take \$20 for my basket if I could not get another. Mr. Heddon also tells us how to draw the bees from the sections. This is my method: Simply place a partition-board between the case of sections and the brood-chamber, first blowing in a little smoke to awaken and scare the bees; then cover the case, except a ¼-inch slot or opening for egress to the outside of the hive. It is best to have it in front. It works like a charm, and as soon as robbers are troublesome, I bore holes in the board at or near the front end of the cap of the hive, and place in the holes for egress, small wire-gauze conical tubes, not unlike Mr. Alley's to his drone or queen catcher.

St. Paul, Minn. MOUCH AMIEL.

Honey in Mountainous Regions.

I agree with Mr. Pleasants, in his article on page 375, and think the time is not far distant when our valley apiarists will have to be moved back into the mountains, beyond the range of fruit-men; and besides the honey-production is better, and the honey is of a better quality, much clearer than that gathered in the valleys. Not nearly so much honey is gathered along the coast. We also have sections in this county which are overstocked with bees. Within an area of six square miles there are over 1,500 colonies kept; and from observation I have never known any of them to get any where near the amount of honey, per colony, compared to those with smaller apiaries and larger ranges of bee-pasturage. Where bees are left with plenty of honey in the fall, thus leaving but little cold air space, and having a good queen, they come out in the spring strong and vigorous, as such an amount of honey encourages brood-rearing earlier and stronger. They seem to know that they have the "backing" when they have so much honey, the same as a man who has plenty of capital in his business. I have found that to stimulate bees in February or March, in this mild climate, is a great advantage. Last season I experimented in rearing late queens, but found it unprofitable. I have had them fertilized in November, but have had five failures to one success. Drones are generally scarce then, and the winds drive the queens before it, causing much loss, and the result is drone layers, etc., and they do not live as long. M. H. MENDELSON.

San Buenaventura, Cal.

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We now club the *British Bee Journal* and our Monthly for \$2.50, or it and the Weekly for \$3.50.

Apiary Register—New Edition.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it. The prices will hereafter be as follows:

For 50 colonies (120 pages).....\$1 00
 " 100 colonies (220 pages)..... 1 25
 " 200 colonies (420 pages)..... 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

GETTING UP CLUBS.

To increase the number of readers of the BEE JOURNAL, we believe, will aid progressive bee-culture and help to elevate the pursuit. We, therefore, offer the following premiums for getting up clubs:

While no subscription to the BEE JOURNAL will be taken for less than the regular advertised prices (viz.: Weekly, \$2.00; Monthly, \$1.00),—any one getting up a club of two copies, or more, may select from "OUR BOOK LIST" anything therein named, to the amount of 15 cents for every dollar they send direct to this office, to pay them for the trouble of getting up the club; and these books will be sent, postpaid, to any address desired.

For a club of 3 Weekly or 6 Monthly and \$6.00, we will make an *additional* present of a Pocket Dictionary, bound in cloth, containing 320 pages.

For a club of 5 Weekly or 10 Monthly, (or a mixed club of both,) with \$10, we will, in addition to the 15 per cent, present a copy of the AMERICAN "POPULAR" DICTIONARY, comprising every word in the English language that enters into speech or writing; it contains 32,000 words and phrases, 670 illustrations and 512 pages; it is nicely bound in cloth, and will be sent by mail, postpaid, to any address desired.

Subscriptions for two or more years for one person, will count the same as each year for a different person.

Dzierzon's new work entitled "Rational Bee-Keeping," we now club with the BEE JOURNAL as follows: The Weekly for one year and the book, bound in cloth, for \$3, or in paper covers for \$2.75. The Monthly BEE JOURNAL and the book, \$1 less than the above prices. It is an imported book, printed in the English language, and the price of the book is \$1.50 bound in paper covers, or \$2.00 when bound in cloth.

For \$2.75 we will supply the Weekly BEE JOURNAL one year, and Dzierzon's Rational Bee-Keeping, in paper covers; or the Monthly BEE JOURNAL and the book for \$1.75. Or, bound in cloth, with Weekly, \$3.00; with the Monthly, \$2.00.

Do not let your numbers of the BEE JOURNAL for 1884 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

Preparation of Honey for the Market, including the production and care of both comb and extracted honey, instructions on the exhibition of bees and honey at Fairs, etc. This is a new 10 cent pamphlet, of 32 pages.

Cook's Manual in cloth and the Weekly BEE JOURNAL for one year will be sent for \$3. Manual and Monthly, \$2.00. We have no more of the old edition left, and, therefore, the club price of that edition at \$2.75 and \$1.75 is withdrawn.

Create a Local Honey Market.

Now is the time to create Honey Markets in every village, town and city. Wide-awake honey producers should get the Leaflets "Why eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully all over the territory they can supply with honey, and the result will be a demand that will readily take all of their crops at remunerative prices. The prices for "Honey as Food and Medicine" are as follows:

Single copy 5 cts.; per doz., 40 cts.; per hundred, \$2.50. 500 will be sent postpaid for \$10.00; or 1000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

Convention Hand-Book.

It is a nice Pocket Companion for bee-keepers. It is beautifully printed on toned paper, and bound in cloth—price 50 cents.

It contains a copy of a model "Constitution and By-Laws" for the formation of Societies for Bee-Keepers—a simplified manual of Parliamentary Law and Rules of Order for the guidance of officers as well as members, a blank form for making statistical reports—a Programme of questions for discussion at such meetings—model Premium Lists for Fairs which may be contracted or enlarged, and then recommended to the managers of adjacent County or District Fairs—32 blank leaves for jotting down interesting facts, etc.

We have aimed to make it suitable for any locality, and a book that will commend itself to every bee-keeper in the English-speaking world.

We have had some bound in Russia leather, with colored edges—price 60 cents.

We will supply them by the dozen at 25 per cent. discount, post-paid.

Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

Letters for publication must be written on a separate piece of paper from items of business.

Bingham Corner.

MARENGO, ILL., June 18, 1884.

The Doctor Subdues All.—Mr. T. F. BINGHAM, Dear Sir:—I've used the "Doctor" till its all daubed up with bee-glue, and although at first sight I thought I did not like anything so large, I could not now be induced except by the direst poverty, to do with any thing smaller. As a matter of "economy" I much prefer the "Doctor" to any of the cheaper smokers, of which I have worn out several. The "Doctor" has entirely cured me, so that I am now a Bingham man, as my wife always has been. If the somewhat vague remark in your letter means that nothing was charged for the Smoker sent, except the reading of your letter, I shall be very glad of another "Doctor" for the money sent, so that my wife won't take mine from me. Bees just booming on white clover.

Yours Truly, C. C. MILLER.

WOODARD'S LANDING, Wash. Ter.
The Best Smoker.—To BINGHAM & HETHERINGTON, Abonia, Mich., Dear Sirs:—Find enclosed money for 3 Conqueror Smokers, which please send per mail—one to each, Dr. Balch, J. M. Louderback, and H. A. Townner. The Conqueror is the best Smoker I ever used. Respectfully,
May 17, 1884. H. HASTINGS.

DRESDEN, TEX., May 28, 1884.
Conquer the "Cyps."—T. F. BINGHAM, Abonia, Mich., Dear Sir:—Enclosed find \$1.75, for which please send, per mail, one "Conqueror Smoker" to Major H. A. High, Waxahachie, Tex. He bought a Cyprian Queen from me, and the Bees have worsted the old gentleman. I told him that the Conqueror Smoker would conquer the "Cyps," as I had tried one for two years, and "it never failed." Respectfully,
B. F. CARROLL.

BORODINO, N. Y., Aug. 15, 1882.
Cyprians Conquered.—All summer long it has been "which and tother" with me and the Cyprian colony of bees I have—but at last I am "boss." Bingham's Conqueror Smoker did it. If you want lots of smoke just at the right time, get a Conqueror Smoker of Bingham. Respectfully,
G. M. DOOLITTLE.

Prices, by mail, post-paid.

Doctor smoker (wide shield) 3½ inch	\$2.00
Conqueror smoker (wide shield) 3	1.75
Large smoker (wide shield) 2½	1.50
Extra smoker (wide shield) 2	1.25
Plain smoker	1.00
Little Wonder smoker 1½	.65
Bingham & Hetherington Honey Knife, 2 inch	1.15

TO SELL AGAIN, apply for dozen or half-dozen rates. Address,

T. F. BINGHAM, P. M., or
BINGHAM & HETHERINGTON,
ABRONIA, MICH.

The summer meeting of the Lorain County Bee-Keepers' Association will be held in the Court House at Elyria, Ohio, on Wednesday, Aug. 6, 1884. O. J. TERRELL, Sec.
North Ridgeville, O.

The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting on the third Tuesday in August, at Leroy Highbarger's, near Adaline, Ogle County, Ill.
J. STEWART, Sec.
Rock City, Illinois.

The Gibson County Bee-Keepers' Association, will meet at Trenton, Gibson Co., Tenn., on Aug. 2, 1884. A good attendance is expected.
T. J. HAPPELL, Sec.
J. W. HOWELL, Pres.

Honey and Beeswax Market.

OFFICE OF THE AMERICAN BEE JOURNAL.
Monday, 10 a. m., July 28, 1884.

The following are the latest quotations for honey and beeswax received up to this hour:

CINCINNATI.

HONEY.—The demand for extracted is fair, and at all appearances, gradually improving. It brings 6@8c per pound on arrival. There is a small demand for comb honey, but we had small offers only, and a good deal could be sold. It brings 14c per pound on arrival.
BEESWAX.—Offerings plentiful at 30@32c on arrival. C. F. MUTH, Freeman & Central Ave.

NEW YORK.

HONEY.—Sales of comb honey continue slow. As yet there are no arrivals of this season's crop. We have received several small shipments of new extracted honey, which sold readily. For prices on this year's crop, we quote: Fancy white, 1-lb., 16@18c; fancy white, 2-lb., 15@16c; fair to good, 1 and 2-lb., 12@14c; fancy buckwheat, 1-lb., 12@13c; 2-lb., 11@12c. Extracted, white clover, in kegs or small barrels, 8@9c; dark grades, 7@7½c.
BEESWAX.—Prime yellow, 30@32c.
MCCAUL & HILDRETH, 34 Hudson St.

BOSTON.

HONEY.—The sale of honey is almost over, and we are obliged to 2-lb. combs for 15c, and 2½-lb. to 2½-lb. from 10@12c. No 1-lb. in the market. Extracted, 8@10c.
BEESWAX.—35c.
BLAKE & RIPLEY, 57 Chatham Street.

CHICAGO.

HONEY.—This week we have had liberal receipts of comb honey and the prices are irregular. As a rule, the honey is of first quality, and put up in good shape; a gradual improvement is noted in this respect. Prices range from 14@16c for the best; occasionally a case sells for more than that, but it is in a retail way. The extracted honey is still sluggish, at nominal prices—6@8c per pound.
BEESWAX.—Fair receipts; prices 30@37c.
R. A. BURNETT, 181 South Water St.

SAN FRANCISCO.

HONEY.—Offerings do not receive any noteworthy attention; there are no urgent orders in the market, and little or no disposition to purchase on special account. Honey producers make a mistake to ship their honey for sale to parties not in that particular line of business. Outsiders having lots of honey to sell, run about to find a buyer, and not knowing the market, or the value of honey, offer a little under the market, and when these outside lots get out of the way, our market will have some tone. White to extra white comb 14@17c. Dark to good 10@13c. Extracted, choice to extra white 5@6½c. Dark and candied 4c.
BEESWAX.—Wholesale, 27½@30c.
STEARNS & SMITH, 425 Front Street.

KANSAS CITY.

HONEY.—There is beginning to be some demand for new honey now at somewhat better prices. Choice 2 and 1-lb. sections bringing 17@18c; choice old honey less. I am having more inquiry for ¼-lb. sections than I anticipated, and I could use a few hundred pounds at pretty good figures. Who has any? Extracted, dull and unchanged, 7@8c.
BEESWAX.—30@35c.
JEROME TWICHELL, 514 Walnut Street.

ST. LOUIS.

HONEY.—Steady; demand and supply both small. Comb, 12@14c per lb., and strained and extracted 6@6½c.
BEESWAX.—Firm at 32@32½c. for choice.
W. T. ANDERSON & CO., 104 N. 3d Street.

CLEVELAND.

HONEY.—There are some arrivals of new honey which is very nice, unusually so. Our market does not seem to be quite ready for it, the demand not having begun, and no sales made worth mentioning. It is our aim to get 18c for best 1-pound sections, and 16c for 2-pounds. Extracted, as usual, is dull.
BEESWAX.—30c.
A. C. KENDEL, 115 Ontario Street.

SAN FRANCISCO.

HONEY.—We quote comb honey in 2 lb. sections 17@18c; extracted, 7½c.
GEO. W. MEADE & CO., 213 Market St.

The meeting of the Bee-Keepers' Association of Northeastern Kentucky, will be held in the city of Covington, Walker's Hall, on Aug. 13, 1884. G. W. CREE, Sec.

The Kentucky Bee-Keepers' Convention meets in Louisville, Ky., during the opening of the Exposition (day not fixed). N. P. ALLEN, Sec.

QUEENS!

BY RETURN MAIL,

FROM OUR NEW STRAINS OF
—ITALIAN AND ALBINO BEES.

We are happy to announce to the bee-keeping public that we are now prepared to send you QUEENS on short notice, at the following low rates:

Untested, each	\$ 1.00
" per ½ dozen	5.50
" per dozen	10.00
Warranted, each	1.10
" per ½ dozen	6.00
" per dozen	11.00
Tested, each	2.00
Select Tested, each	2.50

Send for our descriptive Price-List and see what our customers say of our goods.

Address, W. M. W. CARY & SON,
COLERAINE, MASS.

(The oldest breeders of Italian Bees in America.)
28Atf

For Rent. My Apiary of 100 colonies of Bees, including a house and one acre of land, shop, honey-house, etc. Also, Bees and Honey for Sale. For terms, address
R. S. HECKTELL, Three Oaks, Mich.
30A3t

Syrian-Albino Queens!

My new Strain AHEAD of all. They build beautiful, straight Combs, without Separators, and are UNEXCELLED as workers. Reared by Alley's method.

Select-Tested, to breed from	\$3.00
Untested	\$1.50

By an error of the type, in last week's Journal, the latter figures were \$1.00.—Ed.

Address, DR. G. L. TINKER,
30Atf New Philadelphia, Ohio.

DR. FOOTE'S HAND BOOK OF HEALTH,

HINTS AND READY RECIPES,

is the title of a very valuable book that gives a great amount of information, of the utmost importance to Everybody, concerning their daily habits of Eating, Drinking, Dressing, Sleeping, Bathing, Working, etc.

It Costs only TWENTY-FIVE CENTS, and contains 288 pages, and is sent by mail, post-paid, on receipt of price. This is just the Book that every family should have.

IT TELLS ABOUT

What to Eat, How to Eat it, Things to Avoid, Perils of Summer, How to Breathe, Overheating Houses, Ventilation, Influence of Plants, Occupation for Invalids, Superfluous Hair, Restoring the Drowned, Preventing Near-Sightedness,	Parasites of the Skin, Bathing—Best way, Lungs & Lung Diseases, How to Avoid them, Clothing—what to Wear, How much to Wear, Contagious Diseases, How to Avoid them, Exercise, Care of Teeth, After-Dinner Naps, Headache, cause & Malarial Affections, Croup—to Prevent.
--	--

IT TELLS HOW TO CURE

Black Eyes, Bolls, Burns, Chilblains, Cold Feet, Corns, Coughs, Cholera, Diarrhoea, Diphtheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts, Whooping Cough, Worms in Children.

It will Save Doctor Bills!

Price only 25 Cents. Sent by Mail, post-paid, by

THOMAS G. NEWMAN,
925 West Madison Street, CHICAGO, ILL.

Vandervort Comb Fdn. Mills,

Send for Samples & Reduced Price-List.
ABTf J. VANDERVORT, Laceyville, Pa.

HELLO! HELLO!

We are now ready to Book Orders for
Bee-Keepers' Supplies.

White Poplar **SECTIONS** A Specialty.
Dovetailed

Everything fully up with the times, and
At Lowest Figures!

Send stamp for 32-page Catalogue and Samples.

APIARIAN SUPPLY CO.,

7A6m WILTON JUNCTION, IOWA.

\$66

a week at home. \$5.00 outfit free. Pay absolutely sure. No risk. Capital not required. Reader, if you want business at which persons of either sex, young or old, can make great pay all the time they work, with absolute certainty, write for particulars to H. HALLETT & Co., Portland, Maine. 4A1y

**FLAT-BOTTOM
COMB FOUNDATION,**



high side-walls, 4 to 16 square feet to the pound. Circular and samples free

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook, Mont. Co., N. Y.

GOLD

for the working class. Send 10 cents for postage, and we will mail you free, a royal, valuable box of sample goods that will put you in the way of making more money in a few days, than you ever thought possible at any business. Capital not required. We will start you. You can work all the time or in spare time only. The work is universally adapted to both sexes, young and old. You can easily earn from 50 cents to \$3 every evening. That all who want work may test the business, we make this unparalleled offer; to all who are not well satisfied, we will send \$1 to pay for the trouble of writing us. Full particulars, directions, etc., sent free. Fortunes will be made by those who give their whole time to the work. Great success absolutely sure. Don't delay. Start now. Address STINSON & Co., Portland, Maine. 4A1y

LOCAL REPORTERS WANTED.
We want an agent and local reporter in every farming community to represent City and Country and furnish us from time to time such facts as we may require. Send 25 cents for credentials and full particulars regarding services and compensation. Address, Will C. Turner & Co., Publishers "City and Country," Columbus, Ohio. 24A18t

Muth's Honey Extractor,

Square Glass Honey Jars, Tin Buckets,
Langstroth Bee-Hives, Honey-Sections, etc.
Apply to **C. F. MUTH,**
976 and 978 Central Ave., CINCINNATI, O.
Send 10c. for Practical Hints to Bee-Keepers.



37A1y

AGENTS

wanted for The Lives of all the Presidents of the U. S. The largest, handsomest, best book ever sold for less than twice our price. The fastest selling book in America. Immense profits to agents. All intelligent people want it. Any one can become a successful agent. Terms free. HALLETT BOOK Co., Portland, Me. 4A1y

ITALIAN QUEENS, DADANT FOUNDATION, and Supplies.—It will pay you to send for Circular. E. F. SMITH, Smyrna, N. Y. 11A1f

**ITALIAN QUEENS
AND BEES.**

Dollar Queens, 90c.; six, \$5.00; twelve, \$9.00. Warranted, \$1.50; tested, \$2.50; selected, 25 cents extra. Warranted pure. Order now and get choice Queens. Send money by P. O. Order, Registered Letter, or American Express.
27A1f **N. F. ASHTON, Davenport, Iowa.**

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.



**BUY AN
ESTEY
ORGAN**

The Best in the World. 150,000 already made. In buying of us or through our Agent, you deal direct with the manufacturer. Write for Catalogue of **ESTEY and CAMP & CO. ORGANS, Decker Bros., Mathushek, Simpson, Estey & Camp, and Camp & Co. PIANOS. AGENTS WANTED.**

ESTEY & CAMP,
188 and 190 State St., CHICAGO.

DOUGHERTY & MCKEE,
Indianapolis, Ind.,

Manufacturers of and Dealers in **BEE-KEEPERS' SUPPLIES and HONEY.** Langstroth HIVES a Specialty. Dadant's Foundation, Bingham Smokers, Wired frames and Foundation from the Given Press, Sections, Extractors and Honey Jars. Send for our **Price List.** 14A26t

**NEW AND USEFUL
Articles for the Apiary**

Send for our 16-page illustrated Circular. 18A1f **HENRY ALLEY, Wenham, Mass.**

WE CALL

the attention of all wanting A No. 1 BEES, Italian, Cyprian or Hybrids, to the following, from one well-known to the readers of this Paper:

"I have never seen a case of foul brood; my bees are entirely healthy, and have always been so, and are O. K. in every respect."
GEO. B. PETERS, M. D.

We can furnish any number of Colonies of the above Bees, and will warrant safe delivery and satisfaction.

N. B.—No Bees will be sold by us, for any consideration, from any apiary that has ever had a case of foul brood in it. For prices and particulars, send to

FLANAGAN & ILLINSKI,
Lock box 995, Belleville, St. Clair Co., Ills.
18A13t 6B3t

SYSTEMATIC AND CONVENIENT.



DAVIS' PATENT HONEY CARRIAGE,
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only \$18.00.

For Sale by

ALFRED H. NEWMAN,
923 West Madison Street, CHICAGO, ILL.

**IF YOU WANT
—A—
VEHICLE,**

SEND A POSTAL CARD TO THE

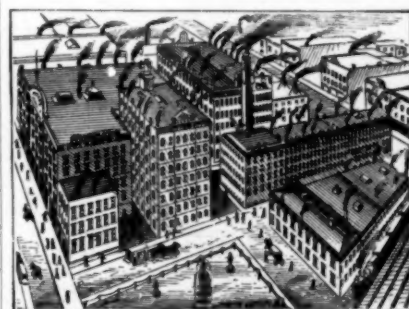
COLUMBUS BUGGY CO.

COLUMBUS, OHIO,

When Catalogue and name of nearest dealer, where our SUPERIOR Vehicles can be seen, will be sent.

We have the LARGEST FACTORY in the world for manufacturing first-class and SUPERIOR

Buggies, Phaetons, Light Carriages,
Surrey Wagons,



AND OUR POPULAR

American Village Carts,

the latter most perfect and free from horse motion.

We make our own wheels from the best timber (sawed by our own mills) that can be obtained from the hills of Southern Ohio—famous for the second-growth hickory.

Any of our readers who will inclose 18 cent stamps, in a letter to the COLUMBUS BUGGY CO., Columbus, Ohio, will receive in return a beautiful engraving in colors representing an "Australian Scene," and their manner of travelling in that country with ostriches as a motor. 24A18t

For Bees, Queens.

Honey, Foundation, Hives, Sections, and all Apiarian Implements, send for Circular to

FLANAGAN & ILLINSKI,
1A11y Lock box 995, Belleville, St. Clair Co., Ills.

1868. 1884.
HEDDON'S
 COLUMN.

BEST GIVEN
COMB FOUNDATION.

Wholesale and Retail.

I now have on hand a freshly-made lot of GIVEN COMB FOUNDATION, made from strictly pure domestic wax, thoroughly cleansed from all impurities. Sizes of brood and surplus, $8\frac{1}{2} \times 16\frac{1}{4}$, or Langstroth size. I have also Dadant's best Brood Foundation of same size; also Dadant's 11x11 for American frames. Send for prices, and state amount wanted. I offer a liberal DISCOUNT to DEALERS.

HEDDON'S LANGSTROTH HIVE.

I believe my Hive is growing in popularity, to a much greater degree, than is the business of bee-keeping. I am now prepared to furnish these hives made up, and in the flat, at very reasonable prices.

One Hive complete for comb honey..\$3.00

(The above will contain two cases complete with sections).

The above Hive complete for extracted honey.....\$3.00

The above Hive complete for both in one 4.50

One Hive in the flat..... 2.00

Five or over, each 1.50

No one should ever order these Hives in the flat, without ordering one made up complete to work by. Parties are advertising Hives as Heddon Hives, that in no wise embrace my principles. Judge only by those purchased from me.

SECTIONS.

I am now ready to furnish white all-Dovetail Sections as follows: $4\frac{1}{2} \times 4\frac{1}{2} \times 6$, 7 and 8 to the foot, per 1,000, \$6.50; $5 \times 6 \times 2$, per 1,000, \$8.00. All shipped from here.

QUEENS!

Our New Strain,

Also IMPORTED ITALIANS!

Take your choice. Prices:

Tested, to breed from.....\$ 3 00
 Untested 1 25
 Untested, after July 1st..... 1 00
 Untested, (per doz.) after July 1st..... 11 00

CIRCULAR for 1884

And be SURE to state whether or not you have my Circular for 1883.

Address,

JAMES HEDDON,
 DOWAGIAC, Cass County, MICH.

Sixth Thousand Just Published!

New and Enlarged Edition

OF

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN.

Editor of the Weekly Bee Journal.

925 West Madison Street, Chicago, Ill.

It contains 220 profusely illustrated pages, is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the Honey-Bee, and at the same time produce the most honey in its best and most attractive condition.

Appreciative Notices.

FRIEND NEWMAN:—I acknowledge with pleasure the receipt, this morning, of a very beautiful book, entitled, "Bees and Honey, or, Management of an apiary for Pleasure and Profit; sixth edition, enlarged." The book opens with a kind, familiar face, and the whole subject matter is concise, easy and comprehensive. I read it with much pleasure. T. F. BINGHAM.
 Abromia, Mich., May 1, 1884.

I have received a copy of the revised edition of "Bees and Honey," and after examining the same, find it to be a very handy and useful book of reference on the subject of bees and honey, and believe it should be found in the library of all interested in the study of bees.

H. H. BROWN.

Light Street, Pa., May 8, 1884.

PRICE—Bound in cloth, \$1.00; in paper covers, 75 cents, postpaid.

THOMAS G. NEWMAN,

925 West Madison Street, Chicago, Ill.

A Liberal Discount to Dealers, by the Dozen or Hundred.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

50 TONS

OF COMB HONEY WANTED.

Believing it to be advantageous to both seller and buyer to deal with the same parties year after year, we have for several years bought the entire honey crop of many bee-keepers. In view of our increasing trade, we wish to add to our list of producers the names of a few more reliable men whose honey crop is from one to ten or more tons yearly. Through the actions of certain bee-keepers, the trade now demands mostly one-pound sections. We pay spot cash at railroad station for what we buy. Those desirous of becoming acquainted with such dealers, will state how much honey they have of each size section. How much of each quality. How soon the whole or part of it can be in shipping order. Name lowest cash price, and say how much more is in your locality. If answer is favorable, we will call on you, York State, Michigan, or Vermont preferred. Address,
F. I. SAGE & SON, Wethersfield, Conn.

A NEW BEE VEIL.



There are five cross bars united by a rivet through their center at the top. These bars are buttoned on to studs on the neck-band. The bars are of best light spring steel; the neck-band of best hard spring brass; the cover is of handsome light material. It is very easily put together, no trouble to put on or take off, and folds compactly in a paper box 6×7 inches by one inch deep. There would be no discomfort in wearing it either day or night, and the protection against Mosquitoes, Flies, Bees, Gnats, etc., is perfect. The weight of the entire Veil being only five ounces.

Price, by Mail or Express, \$1.00.

ALFRED H. NEWMAN,
 923 West Madison Street,
 CHICAGO, ILLINOIS.

A PRIZE.

Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address, TRUE & Co., Augusta, Maine. 4A1y

J. W. ECKMAN,

DEALER IN

Pure Italian Bees and Queens

For further information, send for Circular.

7A1y RICHMOND, Fort Bend Co. TEXAS.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

GOLDEN ITALIANS!

I now wish to say to my former customers, that I am now ready to fill orders for the following Queens.

Hybrid in May and June, each....\$.50
 Italian—untested—not warranted, in May and June, each..... 1.00
 Italian—warranted, May and June, each..... 1.50
 Italian—tested Queen 2.50
 Full colonies of Hybrids..... 7.00
 Full colonies of Italians..... 10.00
 20Atf **L. J. DIEHL, Butler, Ind.**

STANLEY'S

Automatic Honey Extractor AND SMOKER.

Send for descriptive Circular and Prices to
G. W. STANLEY & BRO.,

20Atf WYOMING, N. Y.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

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